

Removing Costs From The Health Care Supply Chain: Lessons From Mass Retail

Many standard health care products and services should be “commoditized”—and priced accordingly.

by John Agwunobi and Paul A. London

ABSTRACT: Improved supply-chain management and high-volume purchasing have benefited other industries. This same approach could also reduce health care costs. Streamlining layers in the supply chain and using purchasing volume to reduce prices can save money and may improve care. Providing access to in-store health clinics and low-cost generic drugs are examples of how this approach is being tested by mass retailers. We examine lessons learned from these and similar initiatives and identify opportunities to cut the costs of generic and name-brand drugs, medical supplies, over-the-counter remedies, and vision care. [Health Aff (Millwood). 2009;28(5):1336–42; 10.1377/hlthaff.28.5.1336]

RISING HEALTH CARE COSTS are a growing burden. In 2008 more than half of Americans said that they had reduced their use of health care because of the expense. They postponed care, avoided tests and treatments, did not fill prescriptions, split pills, and skipped doses.¹ Our nation's collective health is at risk, and the problem escalates with increasing unemployment and decreasing government assistance.² The retail sector can offer lessons on how to reduce costs for patients, employers, and providers, leading to better health.

Lessons From Mass Retail

Mass retailers maintain a continuous focus on reducing costs. They reduce steps in the supply chain, eliminate middlemen, purchase in bulk with volume-based cost discounts, and embrace price competition wherever possible.^{3, 4} For a mass retailer, any item that can be commoditized—that is, made into something that is not distinguished by brand—is a product that can be purchased in bulk and offered at a reduced price. Mass retailers price standardized, everyday products and services as commodities.

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In a commoditized market, variation in a specific product's characteristics or quality is minimal, and competition occurs on the level of price. The cost of a commodity is heavily influenced by volume. Margins are typically smaller when compared with customized or specialty products and services, such as tailored clothing or open-heart surgery.⁵ With commodities, the more you buy, the lower the unit price, without necessarily being a sacrifice in quality or innovation.⁶

Many standardized health care products and services today are priced as customized items, when they should and could be priced as commodities. Examples include generic pharmaceuticals; routine lab tests and procedures, such as blood tests; and services, such as the treatment of uncomplicated ear infections.

Streamlining The Health Care Supply Chain

The health system is beginning to benefit from the application of cost-control models from mass retail. Several factors have aligned to promote the retail industry's entrance into this arena: (1) rising health care costs and the resulting consumer-driven demand for lower-cost alternatives;⁷ (2) customers' increased access to health information, which may make them more willing to seek care beyond traditional settings and trust non-brand-name medications;⁸ (3) increasingly uniform approaches to care for certain common illnesses based on standardized, research-based clinical guidelines, which has enabled more health care products and services to be priced as commodities;⁹ and (4) increased access to providers, such as advanced registered nurse practitioners, who deliver high-quality services at relatively low cost.¹⁰ Today we can see the payoffs; growth in spending on retail prescription drugs in 2007 was the lowest since 1963. One reason is the increased use of generics, which are considered broadly equivalent to brand-name drugs but cost, on average, 30–80 percent less than their brand-name equivalents.^{8,11}

The cost savings associated with the increased use of generic drugs continues to grow, as competitive programs by mass retailers and pharmacy chains drive down generics' prices.¹¹ Education efforts of pharmacy retailers, pharmacy benefit managers (PBMs), and health plans on the equivalence and safety of generics have contributed to increased patient confidence in generics, and utilization has risen.^{8,12}

Broader application of mass-retailing models could remove additional costs from the health care supply chain. Partnerships that allow the system to take advantage of mass retail's purchasing power and focus on cost reduction could save even more, while still meeting patients' needs.¹³

We find that simple health care products and services are often priced higher than necessary. Generic drugs cost pennies per pill to produce, but drugstores have traditionally priced generics in relation to the price of their brand-name equivalent, rather than their cost of acquisition. This sometimes has resulted in markups on generics of 50 percent or more. As a result of greater competition, however, this practice is starting to change.¹⁴ For example, low-cost generics today are offered in some cases for as little as \$4 for a thirty-day supply at commonly

prescribed dosages.¹⁵ Increasingly, these drugs are priced in relation to what they actually cost.¹⁶ By forgoing high profit margins in exchange for volume growth, mass retailers have created a competitive cascade that has begun to affect overall health care costs. In fact, although the volume of generic drugs purchased in the United States grew during a recent twelve-month period, generic sales declined by 2.7 percent during that time, in part because of increased competition.¹² Lower generic drug prices have encouraged brand-name drug makers to offer lower-price versions of brand-name drugs.¹⁷

Additionally, retailers have begun to offer in-store health clinics that provide basic health services, such as treatments for nonemergency conditions, at commodity-like prices. These clinics offer convenience and lower prices partly through high-quality, lower-cost providers—typically, licensed nurse practitioners supervised by a physician either on site or remotely. About one in ten clinics are connected to a hospital, and this number is expected to increase. With the shortage of primary care physicians and increasing numbers of uninsured people, retail clinics provide cost-effective access to care.^{18, 19} Some insurers, such as Blue Cross Blue Shield of Minnesota, have recognized retail clinics as preferred providers of simple medical treatments and routine vaccinations and have even eliminated copays in some settings.²⁰

To preserve continuity of care, many clinics use health information technology (IT) to share health records with the patient's "medical home" provider. Most refer patients to a more appropriate setting for care when a more in-depth diagnosis, test, or procedure is needed. Many retail clinics also routinely identify and connect patients who do not have an existing health care provider to one in the area.¹⁸

In-store clinics are projected to save uninsured patients about \$240 annually, while helping them avoid emergency department visits for simple, nonurgent medical conditions. Clinics prominently post the charges for each service, so patients are informed before they receive care.¹⁸ Those located inside retail stores with pharmacies provide the convenience of access to care and low-cost prescriptions within one building.

Keys To Success

To successfully apply the lessons of mass retailing to controlling health care costs, efforts should include the following.

■ **Respect health care's complexity.** The goal is to have the greatest impact on costs without reducing the quality of care. Not everything in our health care system can or should be sourced, supplied, or priced as if it were a commodity (for example, high-risk medical procedures, complex diagnostics, and specialty pharmaceuticals).²¹ Health care products and services should be considered as viable candidates for commodity-type pricing if they meet certain criteria: (1) Research should clearly define the product or service and how it is provided. This will allow for a standardized set of clinical guidelines to reduce provider variation. (2) There must be mini-

mal need for customization. For example, the treatment of a diabetic with insulin requires highly customized dose titration, often by a specialty provider. In contrast, the treatment of routine herpetic cold sores in an otherwise healthy person does not require much, if any, customization. (3) The condition, the patient profile—such as age or accompanying conditions—and the treatment should not be commonly associated with complications or side effects. (4) The products and services must be able to be procured and delivered in large volume, cost-efficiently.

■ **Encourage cost transparency.** According to the *Boston Globe*, “Most patients don’t think about the payments their insurance company makes to hospitals and doctors, but they should: inflation of those payments is the main reason insurance premiums increased by an average of \$1,800 per family during this decade.”²² Policies must motivate people to pursue less costly care by making the true costs of care evident. One simple step would be for receipts to show not just costs to patients, but the total cost, including payments from third parties.

■ **“Bundle” services only when it improves efficiency and price.** Bundling services and products into an episode of care—for example, the diagnosis and treatment of uncomplicated strep throat—makes sense only if these “episodes” comprise a standard set of components. This standardization allows “apples-to-apples” price and quality comparisons of the bundle across different providers. Bundling should be offered only with full price and quality transparency.

One can argue that commodity-type health products and services should never be bundled with specialty or highly customized services, because this hinders the economic forces that tend to reduce the price of the commodity components over time. The purpose of episode-of-care bundling should be to allow for the application of commodity-type pricing to the entire bundle as a unit.

We also believe that episode-of-care bundling should not be allowed to limit patients’ choices. For example, prior to 2004, patients in some states could not purchase contact lenses from providers other than the doctor performing their vision exam. Not until the passage of a 2004 law mandating that patients receive a copy of their contact lens prescriptions could patients shop for the product and price that best met their needs.²³ As a result, creative alliances between contact lens retailers and mass retailers developed to consolidate distribution, leverage supply-chain synergies, and reduce overall costs and prices of contact lenses.²⁴

■ **Address regulatory barriers.** Some states’ laws inadvertently create hurdles. North Dakota restricts corporate-owned pharmacies from entering the market, effectively prohibiting mass retailers from bringing \$4 generic programs to the state. Reversing that policy could save North Dakota patients an estimated \$2 million annually.²⁵ Such laws and regulations should be carefully reviewed to ensure that they are not unduly restricting competition and raising prices for patients.

Future Opportunities

■ **Prescription drugs.** In one pilot program, a large employer is negotiating drug prices for employees directly with a mass retailer, redefining the role of PBMs in setting prices for payers. The program abolishes average wholesale prices (AWPs), which have been called “wildly inflated,” in favor of pricing based on a drug’s cost. Under the program, the generic diabetes drug metformin is available to plan sponsors for more than 65 percent less than the typical price paid by employers that use AWP-based pricing models. Others are beginning to explore similar programs.^{26, 27}

More savings are possible with increased use of generics. According to an Express Scripts study, the fill rate for generics in certain therapeutic categories is up to 50 percent lower than it could be, based on the availability of generic alternatives. Maximizing low-cost generics could save as much as \$20 billion for plan sponsors and members, and improve compliance and health.²⁸

■ **Over-the-counter (OTC) health products.** We should seize every opportunity to give information to support patients in making informed decisions. This should include a strategic push to move more drugs and screening diagnostics to OTC status (for example, topical antifungals and screening diagnostics for routine conditions such as viral “pink eye,” influenza, and so forth). Just as home pregnancy tests can rule out pregnancy (and therefore a trip to the doctor), self-diagnosis can be used to rule out a disease. Only those patients who do have a condition will likely visit a physician, reducing unnecessary physician visits.²⁹ Patients can avoid up to one-quarter of physician visits through self-treatment.³⁰ One program that offers low-cost OTC diabetes self-monitoring products could save patients more than \$200 annually, while increasing access to prevention-oriented care.³¹ Competitive pricing of diabetes monitoring kits has helped reduce prices from more than \$65 to less than \$20 across the retail pharmacy market.³²

■ **Supplies used for simple medical procedures.** Another opportunity to reduce costs includes supplies sold to medical practices, hospitals, nursing homes, and home health services for simple medical procedures—blood testing tools, stethoscopes, and thermometers—as well as basic x-rays and other diagnostics. Across California hospitals, for example, the list price for a standard chest x-ray can vary tenfold, so there may be room to cut costs.³³ Likewise, anecdotal evidence suggests that some hospitals may be paying about \$10 more for a blood pressure cuff through a medical supplier than the price offered at mass retail stores.³⁴

Nursing homes, medical clinics, and hospitals purchase basic cleaning and other supplies from producers or wholesalers. Most rely on medical distributors, where high per unit costs may be masked by distribution charges, group purchasing fees, and packaging variances. Anecdotally, we have seen medical clinics paying twice as much for toilet paper through a distributor as they would pay at a local retail center. Likewise, a nursing home was paying about four times as much as a local retailer’s price for a toilet seat cushion it purchased through a distributor.³⁴

■ **Routine wellness services.** Routine preventive care, such as vision exams, dental cleanings, and sports physicals, also are services that may be provided as commodities while preserving quality of care, as long as health IT connects the patient's primary "medical home" to the information generated. Likewise, why not take advantage of the bulk purchase of vaccines for flu, varicella, and pneumonia? One study found that private practices across five states pay different amounts for common vaccines and receive varying reimbursements for administering them.³⁵

■ **Monitoring of chronic illnesses.** After an initial diagnosis by a qualified provider, nurse practitioners and pharmacists can provide monitoring for a fraction of the cost. A 2006 study showed that nurse practitioners provide more cost-effective follow-up care to cardiovascular patients than primary care physicians or cardiologists do, with positive health outcomes.³⁶

RISING COSTS BURDEN THE HEALTH CARE SYSTEM and the U.S. economy. It will not be easy to lower the costs of the health care supply chain. Modernizing that supply chain will require the support of all who bear the burden of the nation's rising health care costs. Much more can and should be done to leverage lessons from retail, where scale, supply chain networks, and cost-cutting experience can make a sizable dent in overall health care costs.

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Paul London was an independent, unpaid contributor to this paper. For other projects, he has served as a paid consultant to Wal-Mart.

NOTES

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